

REMARKS

The non-final Office Action was issued on pending claims 1-6. Claims 1-6 stand rejected. In this Response, claims 1 and 2 have been amended, claims 4 and 6 have been cancelled without prejudice and no claims have been added. Thus, claims 1-3 and 5 are pending in the application.

Applicants invite the Examiner to call Applicants' Representative to discuss any issues with this application.

Claim Rejections – 35 USC §112

In Office Action paragraph 8, claims 4 and 6 were rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claims 4 and 6 have been cancelled without prejudice.

Applicants respectfully submit that the § 112, second paragraph, rejections should be withdrawn.

Claim Rejections – 35 USC §102

In Office Action paragraph 2, claims 1 and 3 were rejected under 35 USC §102(b), as being anticipated by Tokumaru et al. (US 5,611,015). Applicants respectfully disagree.

Applicants' invention, as claimed in claim 1, pertains to a method for estimating an amount of angular disagreement of planes of polarization between two polarization-maintaining optical fibers. The method includes the step of irradiating a light on the lateral side of the polarization-maintaining optical fibers during the connection of the polarization-maintaining optical fibers. The method also includes the step of estimating the amount of angular disagreement of the planes of polarization from positions and heights of two peaks of brightness of a transmitted light produced by irradiating the light. Accordingly, the invention of claim 1

calls for an amount of angular disagreement of planes of polarization is estimated from positions and heights of two peaks of brightness of a transmitted light produced by irradiating light on a lateral side of the polarization-maintaining optical fibers. An advantage of Applicants' invention is that the angular disagreement of the polarization-maintaining optical fibers can be estimated accurately.

Tokumaru et al. simply does not disclose or suggest all of the claimed features, as claimed in claim 1. Tokumaru et al. pertains to an apparatus and method for splicing two polarization-maintaining optical fibers. In Tokumaru et al., three peaks of brightness of the transmitted light are obtained by irradiating light on the lateral side of the polarization-maintaining optical fibers. First and second values are calculated from relative positions of these peaks. The two polarization-maintaining optical fibers are aligned by moving the fibers such that the first and second values are equal.

However, Tokumaru et al. merely calculates values corresponding to the relative positions of the peaks. Tokumaru et al. does not estimate the amount of angular disagreement of planes of polarization concretely. Furthermore, the feature, as claimed in claim 1, that the amount of angular disagreement of the planes of polarization is estimated using the heights of two peaks of brightness of the transmitted light produced by irradiating light on the lateral side of the polarization-maintaining optical fibers is not disclosed in Tokumaru et al. As described in Applicants' specification, the relationship between the positions of the peaks and the amount of angular disagreement of the planes of polarization varies in accordance with the characteristics of the polarization-maintaining optical fibers, especially with the shape, material, and refractive index of stress applying sections provided therein, and therefore, the amount of angular disagreement of the planes of polarization cannot be accurately measured from the positions of the peaks. Applicants' specification, page 2, line 23-page 3, line 5. Similarly, the amount of angular disagreement of the planes of polarization cannot be measured by Tokumaru et al.

Therefore, Applicants submit that Takamura et al. does not anticipate Applicants' invention as claimed in claims 1 and 3.

Thus, Applicants respectfully submit that the § 102(b) rejections have been overcome.

Claim Rejections – 35 USC §103

In Office Action paragraph 5, claim 2 was rejected under 35 USC §103(a) as being unpatentable over Tokumura et al. In Office Action paragraph 6, claim 5 was rejected under 35 USC §103(a) as being unpatentable over Tokumura et al in view of Feth et al. (US 5,881,185). Applicants respectfully disagree.

Applicants' invention, as claimed in claim 2, pertains to a method for estimating an amount of angular disagreement of planes of polarization between two polarization-maintaining optical fibers. The method of claim 2 calls for irradiating a light on the lateral side of the polarization-maintaining optical fibers after the connection of the polarization-maintaining optical fibers. Claim 2 also calls for the step of estimating the amount of angular disagreement of the planes of polarization from positions and heights of two peaks of brightness of a transmitted light produced by irradiating the light.

As discussed above, the amount of angular disagreement of the planes of polarization cannot be measured by Takamura et al.

Furthermore, Applicants submit Feth et al. does not remedy the deficiencies of Tokumura et al. Even further, Applicants submit Feth et al. does not disclose a technique for estimating the amount of angular disagreement of planes of polarization.

Therefore, Applicants submit claims 2 and 5 are not obvious in view of Takamura et al. alone or in combination with Feth et al., even if such combination is proper.

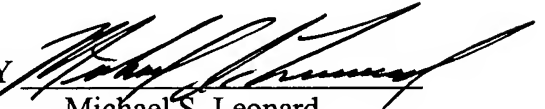
Thus, Applicants respectfully submit that the §103(a) rejections have been overcome.

CONCLUSION

For the foregoing reasons, Applicants submit that the patent application is in condition for allowance and request a Notice of Allowance be issued.

Respectfully submitted,

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